

slowly southeastward, being at 11 p. m. of the 9th between Lakes Huron and Ontario, and but little east of that place at 11 p. m. of the 10th; meanwhile a considerable extension of the area of rising barometer and northerly winds had taken place over the Middle Atlantic coast, and, reaching into the South Atlantic States, formed a ridge of maximum pressure from the upper St. Lawrence to Florida. The pressure remained stationary in the South Atlantic States, but fell in the Middle States and Canada, and the area of highest barometer remained off the South Atlantic coast until 11 p. m., of the 13th.

No. IV.—The northerly winds and rising barometer in the rear of low pressures Nos. VIII and IX covered Texas on the 14th at 7:35 a. m., and extended thence slowly eastward over the Southern States, remaining, however, highest on the Texas coast until the 16th, 7:35 a. m. Meanwhile a continuous southward flow of colder air was taking place, with rising barometer over Manitoba and the Northwest, reaching Indian Territory and Missouri at 7:35 a. m., of the 16th, and forming, at 7:35 a. m., of the 17th, a ridge of high pressure from Manitoba to the Western Gulf. The pressure now began to fall in Manitoba, and the area of highest barometer, at 7:35 a. m., of the 18th, extended from Louisiana to Illinois, whence it moved slowly eastward and was, at 7:35 a. m., of the 19th, central in the interior of North Carolina, and, at 7:35 a. m., of the 20th, off the South Carolina coast.

No. V.—In the rear of low barometer No. X northerly winds extended southward only as far as Kansas and Missouri, while southerly winds and rising barometer prevailed in the Gulf States, which movement may apparently be described as an extension westward of the high pressure No. IV or of the general area of high pressure prevailing under the tropic of Capricorn. The rising barometer in the Northwest extended eastward over the Ohio valley and Lake region, reaching the Middle Atlantic States on the morning of the 22d, after which this ill-defined area of high pressure can be no longer traced.

No. VI.—While low barometer No. XI was developing in Kansas, and the pressure was falling in the Southern States, the barometer began to rise, with northerly winds and clear weather, over the Lake region. At 7:35 a. m., of the 23d, the barometer was highest, with northeast winds, over Manitoba and Lake Superior, and continued to rise in that region, where it was also highest, but with calms, at 7:35 a. m., of the 24th. It had fallen slightly by 7:35 a. m., of the 25th, by which time the highest pressure had passed to Illinois and Missouri, whence it moved eastward, and, at 7:35 a. m., of the 26th, extended from eastern Tennessee to western Pennsylvania, and was, at 11 p. m., of the 26th, off the South Carolina coast, where the highest barometer remained until the morning of the 28th.

TEMPERATURE OF THE AIR.

In General.—The isothermal lines upon Chart No. II show the general distribution of temperature for the month, from which it appears that, in comparison with the average of many years, the month has been slightly cooler in the St. Lawrence valley and Atlantic States, and decidedly cooler in the Lower Lake region. It has been slightly warmer in the Gulf States, Ohio and Missouri valleys, and decidedly warmer in the Upper Lake region. The average temperature at the summit of Mt. Washington has been 19°.5, the maximum being 43° and the minimum 0°.

Maximum Temperatures.—The maximum temperatures for the month have been—Denver, 82°; Augusta, Cape Henry, North Platte, Vicksburg, Indianola, Leavenworth and Memphis, 85°; Denison, St. Marks and Savannah, 86°; San Diego and Tybee Island, 87°; Jacksonville, 88°; Montgomery and Shreveport, 89°; Corsicana and Dodge City, 90°.

Minimum Temperatures.—The minimum temperatures for April have been as follows: Cheyenne, Denver and Pembina, 4°; Breckenridge, 5°; Colorado Springs and Duluth, 8°; Escanaba, 9°.

Ranges of Temperature.—The greatest ranges of temperature have been 57° at Duluth; 59° at Yankton; 60° at Bismarck; 65° at Santa Fe; 66° at Dodge City; 69° at Breckenridge and North Platte; 71° at Cheyenne and Colorado Springs; 73° at Pembina; 78° at Denver. The least ranges have been 37° at Charleston, Portland, Me., Tybee Island and Smithville; 36° at Long Branch, New Orleans and Newport; 35° at Thatcher's Island; 34° at Indianola and Mobile; 33° at Cape May and Wood's Hole; 31° at San Francisco; 30° at Eastport; 29° at Galveston.

Frosts, or temperatures low enough to form ice, have been reported at various stations, in the following States, on the respective dates: 2d, N. J.; 4th, Tenn.; 5th, N. C., W. Va.; 6th, Ohio, Tenn., W. Va.; 7th, Kan., Md., S. C., N. C., W. Va.; 8th, N. C., S. C., W. Va.; 9th, N. J., N. C., S. C., W. Va.; 10th, N. J., S. C., W. Va.; 11th, Va.; 12th, Cal., Ill.; 13th, Cal.; 14th, Kan.; 15th, Miss.; 17th, Ill., Iowa, Tenn., Mich., N. C., N. J.; 18th, Ill., Iowa, Kan., Ky., N. C., Md., N. J., N. Y., Pa., Tenn.; 19th, Ga., Md., N. J., N. C., Ohio, Pa., S. C., Tenn.; 20th, N. J.; 21st, Wis.; 22d, Iowa, Wis.; 24th, Wis.; 25th, Ill., Ohio, Mich., Tenn.; 26th, Md., Ohio, Pa., Tenn., Va., W. Va.; 27th, Mass., N. J., N. Y., Ohio; 28th, Minn., Neb.; 29th, Minn., Mich., Ohio, Tenn., W., Va.; 30th, Ill., Ind., Iowa, Mich., N. J., N. Y., Ohio. Most of these frosts were, to a slight extent only injurious to vegetation.